

Application No. 10/666,247

REMARKS / ARGUMENTS

Claims 1, 2, 7, 8, 10-13 and 18-21 remain pending. Independent claims 1, 12 and 20 have been amended. The present amendment reflects the fact that the knee contact plate is located in front of the airbag and is movable by inflation of said airbag. These features are in the specification at paragraphs [0008] and [0009] and the first line of paragraph [0006].

The examiner has finally rejected claims 1, 2, 7, 8, 10-13 and 18-21 under 35 USC 103(a) as being unpatentable over Keeler et al (5,344,184) in view of Schneider (6,431,583). The guide structure in Keeler et al is comprised of scissor moveable linkages # 124, 126 and pin 128 connected to a linear actuator 120. As such the entire motion is pivotable about the mounting axis 90 as illustrated. The knee bolster is moved by the actuator 120 and the airbag is independently moved upon inflation upwardly thrust so the knee bolster is positioned along the side surfaces of the deployed airbag. Keeler shows item 153 as the end of the cylinder and 152 as the piston. There is no apparent energy absorbing taper employed nor suggested in either the description or in the dashed portion of the view of figure 5 as stated by the examiner. In fact the pivotal nature of such linkages would arguably make such a feature unnecessary because once the scissor like linkages fully open as shown they would provide a coaxial alignment such that no downward forces can be applied to the piston arm. The examiner is requested to direct her attention to Keeler et al column 5 lines 50 – 60.

Schneider, as shown in figure 6 and 7 has pivoting tethers 52 which are attached through openings 60, 61 in the housing. A retention rod 50 is placed within the tether 148 which most importantly allows the load distributor to rotate up into position during deployment as shown in Fig 7. The examiner is urged to read column 8 lines 7 – 19.

Neither reference teaches the use of guides that direct linear movement, but instead each relies on pivotal rotation of the knee bolster contact plate and neither recites the use of first and second tapered surfaces. Applicants respectfully urge the examiner to withdraw this rejection because neither reference teaches or render obvious the invention as it is now claimed.

Claims 1, 2, 7, 8, 10-13 and 18-20 were also rejected under 35 USC 103(a) as unpatentable over Meduvsky et al (6,846,015) in view of Schneider (6,431,583). The knee bolster in Meduvsky et al relies on a cylinder which moves a piston which is responsive to a fluid flow which when moved moves the piston which is connected to a shaft, the shaft being connected to the knee bolster. All energy damping is absorbed by the cylinder which is an energy absorbing device as recited in column 1 lines 25-50.

When combining the references as the examiner has in this rejection the resultant combination would clearly require the energy absorbing cylinder of the primary reference to be an essential element. The combination would rely on the fluid viscosity within the cylinder to provide the resistance to the forces applied to the knee bolster. It is applicants' opinion the

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simple guide tubes driven open by the frontal thrust of the inflating airbag as required in amended claims 1, 12 and 20 would not be contemplated by combining the references of Meduvsky et al and Schneider et al. The examiner, as best understood, has indicated the shoulders of the piston 120 that face the end 124 of the cylinder housing are tapered thus can be construed to be a guide pin with a tapered surface. The inner part of the cylinder 90 near the seal 138 has a tapered surface according to the examiner. Applicants can find no mention in the specification of such features. In fact the piston arm 122 and the piston 120 appear to be perpendicular thus the leading head or surface of the piston head is flat as shown which is arguably a 0° taper as the term taper is understood in the art. Applicants' taper enables the surfaces of the guide pin and the guide tube to spread the energy of airbag activation to be distributed across tapered surfaces 74 and 78 rather than abruptly stopped (see para 0021 of the description). Fluid filled cylinders such as found in Meduvsky et al rely on the fluid movement to prevent abrupt stops not tapered mating surfaces. To make a prima facie case for obviousness the references must teach or at a minimum suggest the claimed invention without recourse to hindsight. Applicants respectfully the examiner to withdraw this rejection.

The examiner noted that the method of claim 20 would read on both of the combined references of Keeler et al with Schneider et al as well as Meduvsky et al with Schneider et al.

Both Keeler et al and Schneider use a pivotable movement in the knee bolster. Meduvsky et al has the energy absorbing feature of the fluid filled cylinder as a primary mover of the knee bolster and as shown it is connected to the shaft 122 at the center of the knee bolster 20 by fasteners 126, 128. This insures the proper resistance to forces from the passengers knees and proper forward thrust upon action of the cylinder combining such an energy absorbing cylinder with the pivotable movement of the knee bolster as an airbag is deployed seems implausible as the device taught in Meduvsky does not need an airbag at all for proper functioning. It is unlikely one skilled in the art would combine such elements absent a hindsight reconstruction of applicants claimed combination.

Applicants urge the examiner to withdraw the rejections and allow the application to pass to issue.

Respectfully submitted,



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